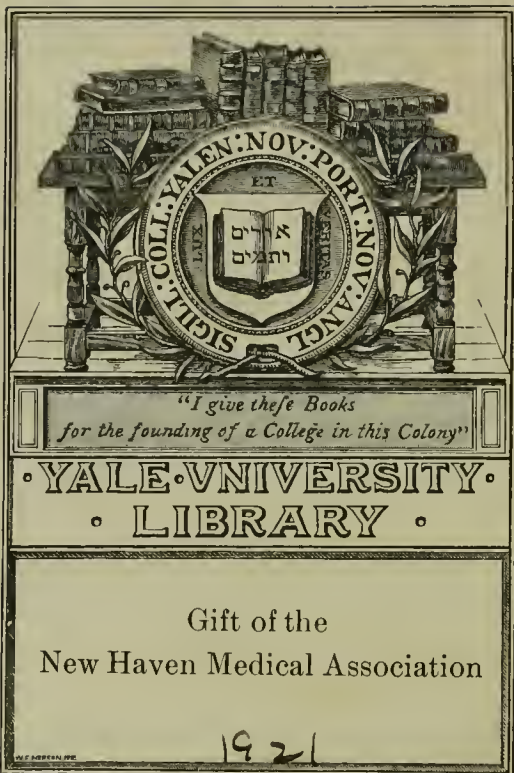


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*On the Curability of  
Tubercular Affections.*

*Professor M'Call Anderson.*



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CLINICAL LECTURES.

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# CLINICAL LECTURES

ON THE

## CURABILITY OF ATTACKS OF TUBERCULAR PERITONITIS

AND

## ACUTE PHTHISIS (*GALLOPING CONSUMPTION*).

BY

DR. M'CALL ANDERSON,

*Professor of Clinical Medicine in the University of Glasgow.*



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## P R E F A C E.

THERE are certain diseases, amongst which must be classed those associated with the development of tubercle, which are generally regarded by the profession as necessarily fatal, and the treatment of which is therefore apt to be conducted in a half-hearted way, and, accordingly, with no prospect of success.

Although I do not wish to assert positively that all the cases mentioned in these pages are undoubted illustrations of true tubercular disease, my principal object in

publishing them is with the view of raising the question, whether true tubercle is really such a relentless foe as it is generally described to be, and whether persistent and energetic treatment, carried out with a hope and expectation of success, may not, in some cases at all events, arrest its progress, and remove the inflammation which is so apt to accompany it.

# CONTENTS.

## *LECTURE I.*

	PAGE
TUBERCULAR PERITONITIS, . . .	1

## *LECTURE II.*

ACUTE PHTHISIS (GALLOPING CONSUMPTION), .	16
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# CLINICAL LECTURES.

## LECTURE I.

### TUBERCULAR PERITONITIS.

GENTLEMEN, — From a therapeutical point of view, we may divide diseases into three classes: (1) those which will terminate in recovery without any treatment at all; (2) those which, do what we will, are certain to terminate in death, and in the treatment of which we must content ourselves with palliative measures for the temporary relief of urgent and distressing symptoms; and (3) those which can be cured by a carefully regulated course of treatment.

The old system of treatment, with its bleeding and purging and mercurialisation, and which probably is too universally tabooed at the present day, was a dangerous weapon ; for although it saved some patients, it undoubtedly did harm, if it did not actually prove fatal, to others who might have recovered without it ; and in any case it was a very unpleasant experience for the poor sufferers themselves. Hence the origin and spread of homœopathy, with its pretty little globules, which the merest tyro can dispense, which has the advantage of doing no harm in those innumerable cases which come under the first group, and which is little worse than the old system as regards the second, although it is utterly helpless as regards the third.

At the present day it is too much the fashion to decry the virtues of medicine ; and it was with much surprise that I lately

read the opening lecture of a distinguished surgeon, in which he stated that his students were to come to him, not so much for the purpose of learning treatment, as for the purpose of learning how to make a correct diagnosis; forgetful of the words of Broussais, who said: "The real physician is the one who cures; the observation which does not teach the art of healing is not that of a physician, it is that of a naturalist." Now I shall feel that I do not discharge the duty which I owe to you if I fail to bring prominently before you what I conceive to be the most correct principles of treatment, and if I make my wards mere schools for instruction in the diagnosis of disease. In pursuance of this object, I desire to bring under your notice illustrations of two diseases which are very generally regarded as almost incurable, but which sometimes respond to treatment in a most satisfactory manner.

The first case that I have to bring before you is that of the little girl Helen G——, who is ten years of age, and who was admitted into bed 2 of ward 5 on September 6th, 1875, complaining of swelling of the abdomen of three months' duration. Her family history presents no peculiarity, except that a brother died when young of "decline of the bowels." Her present illness began about three months prior to admission, with occasional pains in the epigastrium, to which by and by was added swelling of the abdomen; her appetite nevertheless continued fair, and her bowels regular. After the swelling had continued for about a month, a medical man was consulted, who ordered her removal to the country, where she remained about four weeks, her condition improving and the swelling fast diminishing under the use of "juniper drops." A month before her admission, however, the



swelling reappeared; but her mother thought that, to some extent, it had "been kept under" by the use of cream of tartar. She has never had much cough, but her urine has frequently thrown down a reddish-yellow precipitate, and has been lately rather deficient in quantity.

On examination, we found that there was only slight fever, the temperature being usually from  $99^{\circ}$  to  $100^{\circ}$ ; but there was decided perversion of the pulse-respiration ratio, the pulse being  $104^{\circ}$  (of fair strength) and the respirations 36 per minute. She was not much emaciated; her tongue was slightly furred, her appetite fair, her bowels inclined to be loose, and she complained a great deal of pain and tenderness of the abdomen. There was distinct evidence of fluid in the peritoneal cavity, and that in considerable quantity, as, when she lay upon her back, the lateral dulness on percussion.

extended as far forwards as a line drawn down from each nipple, while below it began at the junction of the middle with the lower third of the abdomen. The circumference at the umbilicus was twenty-six-inches.

Now what has been the cause of the ascites? Manifestly not disease of the kidneys or heart, for both these organs were healthy; nor disease of the lungs, for although, as we shall see presently, these were not healthy, the condition is not such as to be likely to produce dropsy, and because dropsy dependent upon disease of any of these organs commences in the subcutaneous cellular tissue, and only secondarily involves the serous cavities. The accumulation of fluid must therefore have been due to an abdominal cause, and then, generally, it arises in consequence of obstruction to the portal circulation. But in this case there was no evidence whatever of disease of the liver or of other

abdominal source of portal obstruction ; and thus, by a process of exclusion, we arrived at the opinion that it probably resulted from inflammation of the peritoneum. Further, we were justified in suspecting that the inflammation was of a tubercular nature (although, in the majority of cases, this condition gives rise to adhesive inflammation with matting together of the abdominal contents, and not to fluid effusion), and for these reasons :—1st. The patient's brother died of "decline of the bowels." 2nd. She is only ten years of age—a time of life when tubercle of the peritoneum is common. 3rd. She had a slight dry cough ; there was dullness on percussion at the left apex, and in the same situation there was "wavy" respiration with an occasional snoring râle—that is to say, she had tubercular disease of the lung (using the term "tubercular" in its widest sense).

Our diagnosis, then, was “tubercular peritonitis with effusion.” Our treatment, as you saw, consisted at first in a careful regulation of the diet and of the bowels; to this was added, on September 15th, Savory and Moore’s pancreatic emulsion, in doses of from half a drachm to two drachms, in milk, an hour after the two principal meals; and on September 21st half a drachm of syrup of iodide of iron three times a day, before food. On October 19th it was noted that her general state was tolerably satisfactory, but although the local symptoms had not become aggravated, it could not be said that there was any decided amendment, and the abdomen still measured twenty-six inches. Accordingly, to the previous treatment was superadded cod-liver oil in doses of a drachm, gradually increased to half an ounce, three times a day. Fifteen days thereafter (on November 4th), the abdomen measured

twenty-four inches, and on the 16th twenty-three inches, by which time all pain had disappeared, and not a trace of fluid could be discovered in the peritoneal cavity, even when the patient rested upon her elbows and knees, an attitude in which a very trifling quantity of fluid can be detected. Towards the end of the month she was dismissed well, although there was still slight dulness at the apex of the left lung, and she was warned to persevere steadily with the treatment which has just been indicated.

If we were to be guided by the opinion of the profession generally, and even by the writings of our best authorities, we should have to take a very gloomy view of such cases. Thus, Sir Thomas Watson says: "These are very unpromising forms of disease, and it is seldom that we can do more than mitigate the most distressing of the symptoms, or retard, perhaps, the march

of the disorder." And, again: "Do what we may, in nine cases out of ten our best-directed efforts will be disappointed."<sup>1</sup> I am far from denying that in a certain proportion of them the disease will terminate in death, do what we will; but I would have you enter upon their treatment with a hope that your efforts may be crowned with success, especially where the inflammation is accompanied by fluid effusion. The case which I have just narrated is by no means a solitary one in my experience. I am at present seeing a lad, twelve years of age, who is just convalescent from a most violent attack of tubercular peritonitis, of which I may perhaps give you full details on some other occasion. Suffice it to say, in the meantime, that he is a member of one of the

<sup>1</sup> *The Principles and Practice of Physic*, by Sir Thomas Watson, Bart., M.D. Fifth edition. Vol. II., p. 438. London: Longmans, Green, and Co. 1871.

most unhealthy families I have ever encountered. His father is dying of cancerous disease of the glands of the neck; his mother had pleurisy last year, and now is phthisical; two of his brothers are at present abroad on account of phthisis; and a brother died of tubercular disease of the bowels. His illness commenced on the 1st January with fever, after exposure to cold, pain and fulness in the hypogastric region, and tympanitic distension of the abdomen; was accompanied by high temperature, great emaciation, diarrhoea, occasional vomiting, but without effusion into the peritoneal cavity; and during the progress of the attack, which lasted about five weeks in all, a large abscess formed in the neck, and discharged about a cupful of pus. He was assiduously nursed, and fed and stimulated; had iced cloths applied to the abdomen for half an hour every second hour—a method

of treatment of which I shall have more to say in my lecture on the treatment of galloping consumption; and opium was administered in full doses (a quarter to a half grain every four hours), with a grain of quinine in each dose. His case appeared, as the disease advanced, an almost hopeless one; and yet he is now sitting up in his arm-chair cheerful and well, and rapidly fattening under the influence of generous diet, syrup of the iodide of iron, and Mackenzie's compound cod-liver oil emulsion.<sup>1</sup>

No sooner was he convalescent than his youngest sister, aged eight, was seized with similar symptoms, fever (pulse 120, temp. 101°2), sickness, tenderness and fulness to the right of the umbilicus, pain so severe that she often screamed out, and diarrhœa, the motions being of a pale yellow colour.

<sup>1</sup> Contains cod-liver oil, pepsine, and hypophosphite of lime.



To these symptoms was added, on the second day of the illness, severe pain in the right ankle, where, however, nothing could be detected, and which subsided in a couple of days.

She was treated by means of morphia in full dozes (8 to 10 minims every six hours), and the application of iced cloths to the abdomen: she was fed exclusively upon iced milk, and in ten days she was convalescent. Here, then, is another undoubted case of localised peritonitis, probably of tubercular nature, but I mention it, not so much as an illustration of the curability of this disease, but as a further proof of the extreme delicacy of the family.

Finally, I call to recollection the case of a little girl who was treated by me in the Royal Infirmary a couple of years ago. Her symptoms were very similar to those of the first patient, including the presence of

fluid in the peritoneal cavity and consolidation of one apex. She was treated with cod-liver oil and syrup of the iodide of iron, and she was tapped twice, a large quantity of fluid being removed on each occasion, which a microscopical examination showed to be inflammatory exudation. This girl made a perfect recovery.

But some may say, I do not believe that tuberculous peritonitis can be recovered from, and in these cases there must have been an error of diagnosis. In answer to this it is sufficient to refer to a case reported by Spencer Wells in his work on *Diseases of the Ovaries*.<sup>1</sup> This was the case of a young lady, aged twenty-two, who had an enlargement of the abdomen which it was supposed might be due to "a thin non-adherent unilocular ovarian cyst." Accordingly a small incision was made below the um-

<sup>1</sup> J. & A. Churchill, London, 1872, p. 135.

bilicus, and the peritoneum opened. "A large quantity of opalescent fluid escaped, and then the whole of the peritoneum was seen to be studded with myriads of tubercles. Some coils of small intestine were floating, but the great mass was bound down with the colon and omentum, all nodulated by tubercle, towards the back and upper part of the abdomen. The uterus and ovaries were felt to be of the normal size, but their peritoneal coat was very rough." This patient made a good recovery, and has since married, and her case not only illustrates the fact that tubercular peritonitis may be recovered from, but also, as in my last case, that the removal of the effused fluid may contribute to that result.

## LECTURE II.

ACUTE PHTHISIS (GALLOPING CONSUMPTION).

GENTLEMEN,—I propose bringing under your notice this morning a few cases illustrative of the curability of acute phthisis, or galloping consumption ; by which I mean, not ordinary cases of phthisis associated with fever, but those rare forms in which there is high and continuous fever, generally of the typhoid type, so that the disease bears some superficial resemblance to typhus, or to a severe attack of enteric fever ; which tends to run its course in a few weeks, and to ter-

minate fatally, unless grappled with energetically, and before the lungs are irremediably damaged. Before doing so, however, it may be well that you should have some idea of the symptoms which, according to some of our leading authorities, are supposed to indicate the presence of galloping consumption, and what views they hold as to the prospects of recovery.

Dr. Walshe<sup>1</sup> thus refers to the symptoms of acute miliary tuberculisation:—“The symptoms are those of a febrile affection, with more or less positive functional implication of the lungs. The invasion, sometimes occurring in a state of apparent health, or preceded remotely by various depressing influences and immediately by exposure to cold and wet, is marked by rigors, followed by acrid heat of the skin; the rigors may

<sup>1</sup> *Practical Treatise on the Diseases of the Lungs.* Fourth edition. London: James Walton. 1871.

recur on several successive days, and there may subsequently be perspiration with abundant crops of sudamina. . . . Prostration sets in early ; in a few days the patient may be unable to stand. Thirst, total anorexia, epigastric tenderness, dry lips and tongue, dental sordes, all signify digestive disturbance ; but the form of the abdomen is natural, there is no gurgling in the iliac fossa, diarrhœa is rare, and constipation may be extreme. Restlessness, insomnia, cephalalgia, vertigo, tinnitus, aurium, diurnal wandering, and nocturnal delirium, bespeak cerebral sympathy. Pain in the chest, variable in seat and never intense ; cough (sometimes preceding, sometimes following, the fever in order of development), paroxysmal or not, and either absolutely dry or accompanied with expectoration of clear or yellowish and opalescent mucus, or in rare instances of viscid sputa, slightly tinged

with blood, without actual hæmoptysis; dyspnœa of considerable amount, indicated not only by the absolute frequency of breathing, but by perversion of its ratio to the circulation, and lividity of the face,—constitute the chief of the thoracic symptoms. The relationship of the pulse to the respiration, however, varies; the average in my cases has proved 3 : 1.”

The late Professor J. Hughes Bennett<sup>1</sup> has described it as follows:—“This form of disease, commonly called ‘galloping consumption,’ is generally distinguished not only by its rapid progress, but by the febrile symptoms which accompany it. There are frequent chills, followed by great heat and sweating, red tongue, nausea, loathing of food, vomiting, diarrhœa. There is a rapid pulse, at first of good strength, but soon be-

<sup>1</sup> Reynold's *System of Medicine*, Vol. III. London: Macmillan and Co. 1871.

coming feeble; dyspnœa on slight exertion; cough; profuse expectoration, sometimes tinged with rusty-coloured blood. Occasionally the expectoration is trifling. There is great exhaustion, rapid emaciation, restlessness, and, before death, wandering of the mind and delirium. On percussion, one or both lungs exhibit unusual dulness, which rapidly extends and becomes more intensified. It is sometimes most marked at the base. On auscultation, there are at the first dry bronchial sounds, and prolonged expiration, which soon passes into moist rattles, loudest with inspiration. The crepitations are now transformed into mucous râles more or less coarse, frequently accompanied with dry bronchial murmurs and pleuritic frictions. . . . Such cases may prove fatal in a period varying from two or three weeks to a few months."

Sir Thomas Watson, in his classical work



on the *Principles and Practice of Physic*,<sup>1</sup> thus expresses himself: "The acute form is of this kind: the patient, who may or may not have seemed previously to be in good health, is suddenly attacked perhaps with copious hæmoptysis; or he catches a severe cold; and almost immediately afterwards intense fever is set up of a hectic character, the physical signs of pulmonary phthisis, especially of cavities, rapidly develop themselves, and death ensues within a few weeks. The case has been one of what is called *galloping* consumption. After death the lungs are found hollowed by numerous vomicæ. Under Laennec's view, tubercular matter has been widely distributed, and has quickly softened. According to Niemeyer's, there has been catarrhal pneumonia in various lobules of the lungs;

<sup>1</sup> Vol. II., fifth edition. London: Longmans, Green, and Co. 1871.

the pneumonic products have fast degenerated into cheesy matter, which has as rapidly broken down; any crude tubercles that might also be in the lungs he would regard as secondary, but by no means necessary, results of the inflammation and its products. To my mind, what seems certain in this form is that *scrofulous* inflammation, scattered broadly through the pulmonary substance, causes its rapid and extensive disorganisation. . . . There is another form of acute consumption, or, as it is usually, and I think more fitly called, *acute tuberculosis*. It is a striking but not very common disorder, and is sure to arrest the attention of the observer when it does occur. I have met with some half-dozen examples of it. The following are its main features. The patient becomes suddenly very ill, has frequent rigors, difficulty of breathing, cough, a very rapid pulse, night-sweats, and high

fever. You listen at his chest, but you do not hear the sounds that are proper to phthisis. You do not find dulness confined to the upper lobes, nor pectoriloquy, nor gurgling respiration; but what you do find are rather the sounds which belong to acute capillary bronchitis, small crepitation diffused all over the chest, and succeeded by absence or deficiency of the natural breath-sounds everywhere, without any defined consolidation of the lung. Meanwhile there is none of the expectoration which is characteristic of phthisis. In short, you would not suppose that the disorder was phthisis at all. It resembles more the onset of one of the specific fevers. The disease runs a short and distressful course; the countenance and lips of the patient become livid; often he cannot lie down; and within a few days, or at least in a week or two, he is dead; and after death you find his lungs

bestrewed from top to bottom with miliary tubercles — the granulations of Bayle,—myriads of them grey, glistening, and minute. The granules are thickly and uniformly spread over the whole of the air-passages or throughout the entire extent of the lungs; and their sudden pressure there in such abundance excites inflammation, which masks and conceals the actual mischief; and the true nature of the case is not often suspected until the body is examined after death. Such, and not the reverse sequence, appears to me to be the *ordo rerum*. The tubercles are the cause of the inflammation, and not the inflammation the cause of the tubercles.”

Dr. Williams<sup>1</sup> writes as follows:—“Let us briefly sketch the two most terrible forms of the disease. A man of middle age is

<sup>1</sup> *Pulmonary Consumption*. London: Longmans and Co. 1871.

attacked with fever, with pungent heat of the body, cough, viscid expectoration, extreme oppression, and overwhelming weakness, resembling that of continued fever, and the likeness sometimes appears also in a coated or dry-brown tongue, sordes on the teeth, and occasional delirium. The vesicular breath-sound is superseded everywhere by bronchial rhonchi and mixed crepitation. On percussion, the chest is dull nowhere, but less clear in the posterior than in the front parts. This case might be supposed to be one of universal capillary bronchitis, with general pulmonary congestion. So it is; but this is not all. In spite of blisters and other remedies, the breathing remains short and difficult; the pulse becomes more rapid and feeble; the lips, cheeks, and nails become livid; clammy sweats break out, and the patient dies in the third or fourth week from his first attack. The lungs are

found congested, and the bronchi loaded with viscid mucus; but more than this, innumerable miliary tubercles are scattered throughout the pulmonary tissue, and these are the obvious cause of the intractability of the case. They break out simultaneously, like the eruption of an exanthem, and by their numbers and bulk induce such an amount of obstruction and congestion in the lungs as to destroy life before there is time for any considerable degeneration or softening to take place. This *acute tuberculosis* is the worst and most surely and rapidly fatal form of consumption. The second form of acute consumption begins with pneumonia in one or both lungs. The patient, generally a young subject, is of consumptive family, and may have previously had cough and occasional hæmoptysis. The fever attendant on the inflammation may not be very high at first, and the

expectoration by no means so viscid and rusty, nor the crepitation so fine and even, as in simple inflammation of the lungs. But the symptoms are more persistent. The pulse and respiration remain frequent. The heat of the body, particularly the chest, continues remarkably high, almost burning the ear of the auscultator, as he examines the back. But this intense heat is alternated with occasional chills and profuse sweats at night. The cough continues distressing, and the expectoration becomes opaque, purulent, and clotty; the flesh wastes, and the strength ebbs away; and if the appetite does not return, the progress of consumption and decay is rapid. Auscultation reveals the steps of the destructive process in the lung. The affected part, or the whole side, or part of both sides, becomes dull on percussion, only varied with the cracked-pot note from the gurgling within; the loud

tubular sounds are replaced by coarse crepitation, in parts amounting to gurgling; and the diffused bronchophony is modified into detached islands of voice, loud and pectoriloquous, or into the snuffling or whispering sounds equally characteristic of a cavity. This form of *galloping consumption* may also prove fatal in a few weeks; and the lungs are found after death in a state of consolidation little more dense than the hepatisation of pneumonia, but their red is mottled with grey and yellow patches of tuberculous or aplastic matter, and excavated in various parts into numerous small cavities communicating with the bronchial tubes, and containing more or less of the same compound matter which was expectorated during life, consisting of mucus, pus, degenerating epithelium and exudation-matter, with disintegrated fragments of lung-tissue."

These descriptions, although varying a



good deal in details, because the symptoms necessarily differ materially in different cases, and because patients die in different stages of the disease, are very similar in their main features, and if we put them together, we get a very good picture of the disease, and one which should enable us to distinguish it when we encounter it at the bedside.

Such, then, being the clinical features of acute phthisis, let us see what view is generally taken of the prospects of recovery.

“In reference,” says Bennett,<sup>1</sup> “to the prognosis of individual forms or cases of phthisis, we must regard acute phthisis as generally fatal. The difficulty here lies in the diagnosis. Once recognized, however, the persistency of intense fever, with rapid emaciation and formation of cavities, give

<sup>1</sup> Reynold's *System of Medicine*, Vol. III. London: Macmillan and Co. 1871.

us little hope of a favourable termination."

Walshe<sup>1</sup> has observed that "the treatment of acute phthisis is far from being well understood; the rarity with which the disease is diagnosticated explains this. Leudet, as matter of experience, lauds the expectant method: better trust to the efforts of Nature than run the risk of doing harm by purely tentative interference. Perhaps he is right. Still it is painful to look on, a mere spectator."

Sir Thomas Watson,<sup>2</sup> speaking of the first form of acute phthisis which I have already described in his own words, says: "Over cases of this acute nature medicine can have very little effective control;" and with

<sup>1</sup> *Practical Treatise on Diseases of the Lungs*. Fourth edition. London: James Walton. 1871.

<sup>2</sup> Watson's *Principles and Practice of Physic*, Vol. II. Fifth edition. London: Longmans, Green, and Co. 1871.

reference to the second: "I can offer you no counsel as to the treatment of these sad cases; they baffle our art, and they are always, so far as I know, fatal. All that can be attempted is to assuage the severity of the most distressing symptoms."

Finally, Trousseau<sup>1</sup> gives his opinion in the following words: "In galloping phthisis, the prognosis is death. Death sooner or later, is invariably the termination. Hitherto art has unfortunately proved unable to contend against this redoubtable malady; it is still more distressing to know that we have not the power even to alleviate the condition of sufferers by whom we may be consulted."

With these preliminary remarks I now proceed to give you three illustrations of this terrible complaint, all of which were

<sup>1</sup> Trousseau's *Clinical Medicine*, Vol. III. The New Sydenham Society. London. 1870.

under observation within the space of twelve months.

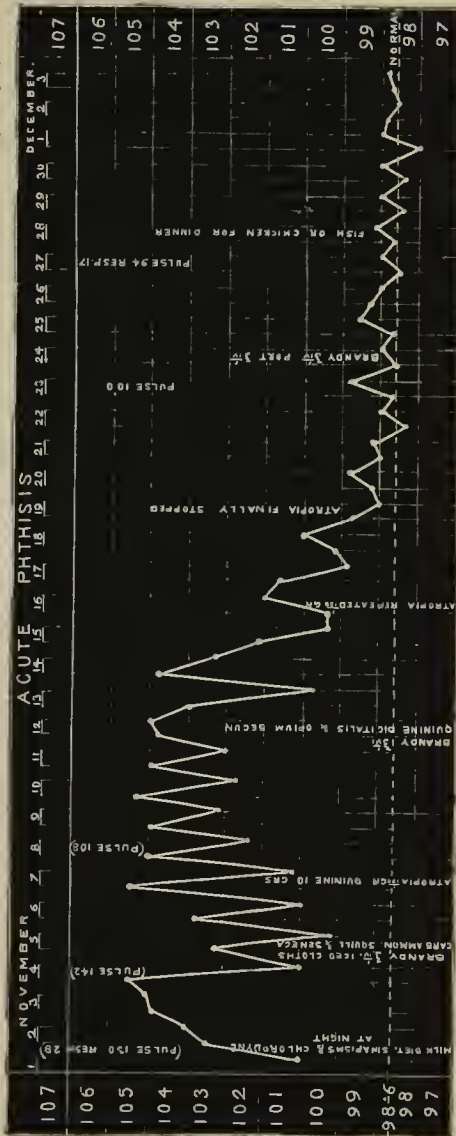
*CASE I.*

On November 1st, 1875, there was admitted into bed 8 of ward 2 a lad—David G——, aged seventeen, an apprentice grocer, —complaining of cough, expectoration, and great debility, of two weeks' duration. His parents, one brother, and one sister, are alive and well, but he has lost a brother and a sister, although he does not know at what ages or of what they died. With the exception of scarlet fever at the age of six, and small-pox at ten, he always enjoyed pretty fair health. But about a fortnight prior to his admission he got wet while on his way home from work; next morning he felt out of sorts and giddy, and while in the act of dressing fainted. Since then he has

been confined to bed, his principal complaint being of weakness, fever with occasional sweatings at night, cough with some pain in the right side of the chest, and a tendency to diarrhœa. When admitted he was in a state of high fever. His pulse was 132 and wiry, his skin dry and hot, temperature  $101^{\circ}$  to  $104^{\circ}$  (see chart), tongue dry and coated in the centre; he was thirsty, but his appetite was not gone, and his bowels were regular; his eyes were glazed and congested, and his face flushed and swollen, and on coughing almost cyanotic. There was evident disease of the lungs; his breathing was accelerated, twenty-eight per minute; there was frequent soft cough, especially in the morning, and expectoration was abundant and muco-purulent. On examination of the chest, both sides seemed to expand equally; there was no comparative dulness, but the percussion note all over was less

clear than natural, although I do not wish to speak too positively upon this point, as we know that the normal sound varies considerably in different persons. On auscultation abundant moist râles were heard with equal distinctness *all over* both sides of the chest.

On November 4th, three days after admission, it was noted that the fever had assumed the typhoid type. He was in a state of great debility, and was bathed in perspiration. His pulse was 142, very weak and compressible; his temperature  $105.6^{\circ}$  during the previous night. The râles were more abundant than ever, and now some dulness was discovered for the first time at the left apex. The following was the treatment adopted: He was fed every hour with milk, soup, or other light nourishment of this kind; and he was ordered four ounces of brandy, and a stimulating mixture com-







posed of a drachm of carbonate of ammonia, three drachms of syrup of squills, and six ounces of infusion of senega, a tablespoonful to be taken three times a day. The application to the abdomen of folded pieces of flannel wrung out of iced water for half an hour from time to time, temporarily lowered the temperature about one degree; but I have since had reason to suspect that this treatment was not very efficiently carried out.<sup>1</sup>

<sup>1</sup> The application of iced cloths is made in this way. The night dress is pulled well up over the chest so as to avoid any possibility of its being wet, and, for a similar reason, a folded blanket is placed across the bed under the patient's body. The usual bed-clothes are arranged so that they reach up to the lower part of the chest only, which latter is covered with a separate blanket in order to prevent unnecessary exposure while the iced cloths are being changed. Two pieces of flannel are employed in the process, each being sufficiently large, when folded into four layers, to cover the whole of the front and sides of the abdomen. One of these, wrung out of iced water, is applied, while the other is left in a large basin filled with iced water at the side of the

For the next eight days he was getting worse instead of better: his temperature kept very high (a dose of ten grains of quinine on the 7th having had little influence upon it), he was emaciating rapidly, and the perspiration was most profuse. For

bed. The pieces of flannel are changed every minute, or so often that they still feel cold when they are removed. The changing of the flannel, especially if two persons are in attendance, one to remove the bed-clothes and the flannel, the other to apply the piece which is freshly iced, can be effected with great ease and rapidity, and without exposing the patient to any injurious extent, if the preliminary arrangement of the bed-clothes is made in the way I have indicated. I have thought it right to mention these apparently trivial details because I have often seen the process carried out in such a way as to be perfectly futile, and because I have frequently been interrogated on the subject. But I think it right to add that, in the treatment of acute phthisis, I do not wish to lay too much stress upon the value of iced cloths by themselves but to attribute the success of the treatment to the combination of measures employed. Of course the same precautions must be taken in the use of iced cloths as in the employment of the cold bath, and the cloths must be at once removed if there is any tendency to coldness or collapse.

the relief of this last symptom, subcutaneous injections of the 100th of a grain of sulphate of atropia were given at night, with the happiest effect; and that it was really controlled by the atropia is apparent from the following statement. On the first night it was partially checked, on the second it entirely ceased, and then the atropia was omitted. Two days thereafter it began again, but was again arrested by a third injection. Being once more omitted, the sweating returned, so that we had recourse to it for the fourth time, and continued the injections for several successive nights, after which it returned no more.

On November 12th it was recorded that, although the perspiration was absent, there was no improvement in the other symptoms, and the emaciation was rapidly on the increase, while the temperature reached  $105^{\circ}$  every night (see chart). What, then, was to

be done? Before resorting to the cold bath, we decided upon the following treatment: In the first place, we fed him every half-hour instead of every hour; secondly, we increased his brandy from four ounces to six; and thirdly, we gave him the following antipyretic powder, a favorite combination of Niemeyer's:—Sulphate of quinine and digitalis, of each twelve grains; opium six grains; divide into twelve powders, one to be taken every four hours.

Within twenty-four hours there was a fall of temperature; in a week it had subsided to  $99^{\circ}$ , and he was much better in every respect. The cough was quite moderate, the acceleration of breathing and the expectoration had ceased, and the râles were almost gone, except at the right base, where, as well as at the left apex, there was some dulness on percussion. From this time he rapidly gained flesh, and became quite cor-

pulent; his tongue cleaned, his appetite was voracious, and he was constantly crying out for food, and his temperature became and remained normal. After convalescence was fully established he was put upon cod-liver oil, and when he was dismissed, some weeks afterwards, he looked as healthy a lad as one could wish to see. The accompanying chart shows the temperature from day to day, and its relation, in time, to the treatment which was adopted.

#### CASE II.

Mary F——, aged sixteen, weaver, was admitted into bed 3 of ward 5 on November 16th, 1876. She complained principally of weakness of three weeks' duration. Her mother and only sister are in good health, but her father and brothers—she does not know how many—all died of consumption.

She herself seems to have enjoyed good health until three weeks before admission; at that time, when returning from her work, she began to shiver and to feel stiffness in the back of her neck and pain in the left shoulder. On reaching home, the pain and stiffness were gone, but she felt feverish, had a slight occasional tickling cough, and perspired freely during the night. At the end of a week she was said to have improved somewhat, and to have been able to go about, but soon increasing weakness, which was accompanied by complete loss of appetite, sleeplessness, and profuse nocturnal perspirations, obliged her to take to bed again.

On admission, all the above symptoms, including the short tickling cough, were present, and her weakness was so marked that her legs shook very much when she attempted to stand, and her hands when she took food. Her tongue was dry and coated

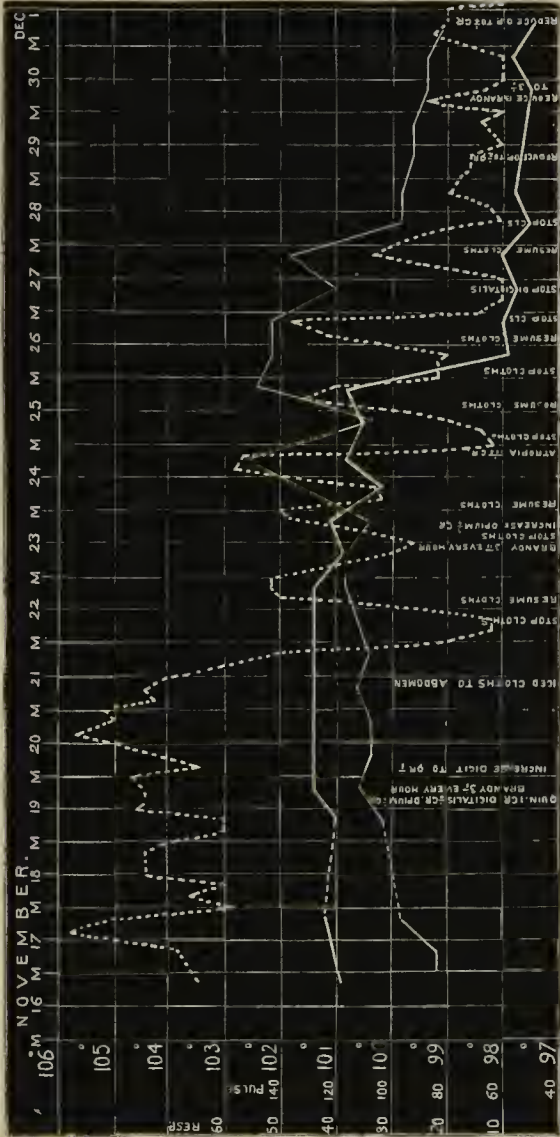
in the centre with a broad white thick fur stopping short at the tip, which, with the edges, was red. She felt sickish, and had a great repugnance to taking even fluid food, although her thirst was great. Her bowels were very costive, and had been so ever since the commencement of her illness. Her menstruation began two years prior to admission, and had always been regular. Her skin was dry and pungent. Temperature  $103.4^{\circ}$ , the following morning  $103.8^{\circ}$ , and in the evening  $105^{\circ}$ ; pulse 120, of fair strength; respirations 22. On examination of the chest, which measured thirty inches (and thirty inches and a half on forced inspiration) on a level with the nipples, musical râles were heard all over both sides both before and behind, and just as abundant at the apices as at the bases, while at the right apex there was some dulness and increased resistance on percussion. Urine

about thirty ounces, clear, high-coloured, sp. gr. 1020, depositing urates on cooling, and containing a small quantity of albumen, which, however, soon disappeared ; no tube-casts were discovered in the deposit.

*Treatment.*—On November 17th : castor oil, two drachms ; ice to suck, iced milk, and soup, frequently. On the 18th, a pill, composed of one grain of quinine, half-a-grain of digitalis, and half-a-grain of opium, was prescribed, to be taken every four hours. The next day (19th), being much in the same state, the digitalis was increased to one grain in each pill.

Notwithstanding the above treatment, she was progressing from bad to worse ; her fever continued persistently very high (as may be seen from the accompanying chart), and at 5 P.M. on the 20th reached  $105\cdot6^{\circ}$ . Her face and eyes were flushed ; she had the dull, heavy, stupid expression of a typhus





Lotted line: Temperature.

Thick white line: Pulse.

Thin white line: Respiration



patient, and was very drowsy; her lips were dry and cracked; her tongue very dry, and thickly coated with a deep-brown fur. There was great difficulty in getting her to take food, and she objected to everything but iced milk, which she took to the extent of a tablespoonful every quarter of an hour. Her pulse was 128, soft and regular. On this day (20th) a teaspoonful of brandy in iced water was prescribed every hour.

On November 21st she began to pass all her water in bed, and continued to do so on the two following days. Her bowels were moved without medicine. Her breathing was very laboured and 36 per minute, while her pulse was 128 and weak; temperature  $104^{\circ}4'$ . She now began to expectorate slightly for the first time, her sputa being slightly rusty. The râles over the whole chest were much more abundant, and now partly musical, partly moist; while at the

right apex the dulness on percussion was more decided, and abundant coarse moist râles were there heard. On this day iced cloths were applied to the abdomen for half an hour every two hours. The following morning the temperature had fallen steadily from  $104\cdot4^{\circ}$  to  $97\cdot2^{\circ}$ , while the respiration and pulse remained as before. The iced cloths were therefore omitted, but were resumed in the evening because the temperature had risen to  $102\cdot2^{\circ}$ . From this date onwards the temperature was never allowed to rise higher than  $102\cdot6^{\circ}$ , which it only reached on one occasion—viz., on the evening of the 24th, and there was not the slightest difficulty in completely controlling it by means of the cloths.<sup>1</sup>

<sup>1</sup> The influence of the other remedies mentioned, and used simultaneously with the iced cloths, must not be lost sight of, for no doubt they contributed to the result: if proof of this is required, it is to be found in the last case in which the iced cloths, atropine injections, etc., failed to give relief, but when the anti-pyretic powders were added there was an immediate fall of temperature.

On the 22nd the state of the chest was much as on the previous day, except that there was a suspicion of dulness at the left apex. The expectoration continued tinged with blood.

On the 23rd, the brandy was increased from one to two drachms every hour, and the opium from half to three quarters of a grain in each pill.

Between the 23rd and the 24th the respiration rose steadily from 34 on the evening of the 23rd, to 56 on the evening of the 24th. On the morning of the 25th it fell to 34, rising again in the evening to 54, and keeping above 50 until the evening of the 26th. On the morning of the 27th, it had fallen to 40, in the evening it had risen to 48. On the morning of the 28th it had fallen to 28; on the 29th to 26; on the 30th to 24; and on December 1 to 20 (see chart).

On the evening on the 24th, the hundredth

of a grain of atropia was injected subcutaneously, and repeated every night till the 29th.

The pulse, from the commencement of the illness, was persistently high and weak, and on the night of the 25th, although somewhat lowered, stood at 116. The following morning it had fallen to 58. It never rose again above 60, and on one or two occasions was as low as 48, while on the morning of the 26th, and for ten days thereafter, it was decidedly irregular both as to force and time.

The digitalis in the pills was omitted on the morning of the 27th; on the 29th the opium was reduced from three quarters to half a grain, on December 1st to a quarter of a grain, and a few days afterwards it was stopped altogether.

To make a long story short, I content myself with two more reports, taken on November 25th and on December 1st.

On the afternoon of November 25th the following was her state:—The countenance is more intelligent, and there is no lividity. She answers questions readily, says she feels much better, and takes food with much less reluctance; her tongue is much moister, and cleaning at the tip; bowels opened by enema. The pulse is 116, of fair strength; the respiration 54 per minute. The pulmonary physical signs are pretty much the same as at last report, but the cough is softer, and the expectoration, which is very moderate in quantity, and mucous in character, has lost the rusty appearance.

December 1st.—Patient is perfectly intelligent, though pale, and asked for food for the first time yesterday. Her tongue is moist, though coated with a thick white fur, and her bowels have not been moved for two days. Her pulse is of fair strength, and 48 per minute. Temperature normal.

No abnormality can now be discovered in the chest, with the exception of some dullness at the right apex, and slighter and more limited dullness at the left, although decidedly less than before the arrest of the symptoms. The râles have entirely subsided.

This girl remained for about two months longer in the hospital, took cod-liver oil in full doses, and left in the most perfect health, the pulmonary physical signs having quite disappeared.

### *CASE III.*

In the beginning of November, 1876, a gentleman, Mr. B——, aged thirty-one, consulted Dr. Brodie on account of a neuralgic affection of the head, for which he prescribed successfully, and a couple of weeks thereafter he sent him to a hydropathic establishment for change of air. He remained there



for a week, and, having caught cold, returned home.

I was then requested to see him along with Dr. Brodie. We found him in a state of high fever, his temperature being  $103.5^{\circ}$ . He had a dry cough, had lost his appetite, was emaciating rapidly, was sleepless, perspiring freely, and very weak. His breathing was rapid, and there was decided dulness at the left apex. Fluid food was prescribed, with a dessert-spoonful of brandy every three hours; and a pill, composed of a grain of quinine, a grain of digitalis, and a half a grain of opium, every four hours.

I saw him next, three days after, on the 1st December. He had risen from his bed two nights before, had fallen, and lay exposed on the floor of his room for some time before he was discovered. We found him in a more alarming state than at the time of our previous visit. He was in a

high state of fever, exceedingly weak, and bathed in perspiration; the dulness at the left apex was still more pronounced, and musical rales were heard abundantly over the whole chest. A thoroughly trained nurse was now got for him; he was fed every hour; his brandy was increased to a dessert-spoonful every hour and a half; the pills were continued, and a subcutaneous injection of one-hundredth of a grain of atropia was prescribed at bedtime. He was very delirious, had much the appearance of a patient in the advanced stage of typhus fever, and seemed so ill that his friends quite despaired of his recovery. Experience of previous cases, however, led me to say that, although in a critical state, we had still hope of amendment.

On the next day he was a little better, but the soup made him sick. He was therefore confined to milk, and champagne

was substituted for the brandy for a day or two. The temperature had fallen by this time to  $101^{\circ}$  in the morning, and to  $99.6^{\circ}$  in the evening.

On December 5th the temperature was  $100^{\circ}$  at 4 o'clock A.M.,  $99.6^{\circ}$  at 8 A.M., and  $99^{\circ}$  at night. He was much improved, and the râles throughout the chest were much less distinct. The breathing was also much quieter, and the bowels had been opened by means of an enema. His pulse was 76 and stronger, but, as the urine was scanty, and the pulse had been slow, weak, and irregular during the night, the pills containing digitalis were omitted. The brandy was increased to a dessert-spoonful every hour, and as he was still sweating a little, the atropia was increased to the eightieth of a grain.

On the 6th the râles had quite disappeared, although there was still dulness in

a more moderate degree, and harsh breathing at the left apex. The respiration was about 22 per minute. His temperature was  $99^{\circ}$  at 4 A.M.,  $97.6^{\circ}$  at 8 A.M., and the same at night; and from this day onward it never rose above  $98.6^{\circ}$ . His pulse, however, was 80, and weak. He was still delirious, and his urine was very scanty—twenty-four ounces. He was therefore fed even more assiduously; the brandy was increased to eight ounces; three drachms of cream of tartar, in the shape of imperial, was prescribed; and the atropia injections were continued.

On the 9th the improvement was very marked; the delirium was quite gone; the temperature  $98^{\circ}$ ; the pulse 60, of fair strength, but rather irregular; the urine in fair amount; the respirations 20 per minute; the râles throughout the chest had entirely disappeared; there was no longer

harsh breathing at the left apex, and the dulness on percussion was very indistinct; he had not coughed once since the previous day; his bowels had been moved twice without medicine; his tongue was cleaning, and was more moist; he was calling out for food, and suggested the propriety of getting a piece of brandered steak. He was still perspiring slightly, and therefore the atropia was continued, and five grains of the hypophosphite of lime thrice daily was prescribed, the cream of tartar being omitted, as he was making water freely. His food was to be given rather less frequently, and the dietary was to be gradually and cautiously relaxed. This patient made a perfect recovery, and felt so well that it was with difficulty that we persuaded him to leave home during the trying months of spring.

In conclusion, let me ask the question—Under what disease were our patients labouring? I think no one who has had experience of such cases, and who saw them while the complaint was progressing, could doubt that they were suffering from acute phthisis. This was the conclusion to which my friend Surgeon-Major Jameson came with regard to the first case—a gentleman who has seen a great deal of that complaint among the negroes in the West Indies, and who saw the patient when visiting the hospital.

Of course I do not pretend to say whether they were cases of non-tubercular or of tubercular phthisis, although the symptoms in the first and second cases seem to harmonise more closely with the descriptions which have been quoted of the latter form; nothing short of a *post-mortem* examination, which fortunately we were not called upon

to make, could settle that point. But some may be disposed to deny that they were cases of acute phthisis at all, because they may say acute phthisis invariably terminates in death. This, however, is begging the question, and, moreover, it is surely just as likely that it may end favourably as that tubercular peritonitis should terminate in recovery, illustrations of which I have given you in a former lecture.

But, waiving the question of exact diagnosis, I think it must be admitted by all that they were suffering from acute pulmonary affections which were hurrying them to their graves, and that, without doubt, it was the treatment which saved them, for you must have observed that each of the remedies was given with a very specific aim, and fulfilled the object for which it was administered. Thus, in the first case, the atropia was injected with the view

of checking the perspiration, which it entirely arrested, while the quinine, digitalis, and opium, were conjoined with the use of iced cloths, with the view of bringing down the fever, and there followed an immediate and steady fall of temperature; and in the second case, the quinine, digitalis, and opium having failed to counteract the fever, iced cloths to the abdomen were superadded, upon which the temperature fell in less than twenty-four hours from  $104^{\circ}$  to  $98.2^{\circ}$ , and we had no difficulty thereafter in completely preventing any undue elevation of temperature.

Such, then, are the kind of cases which should be brought under the notice of those who, in these days of scepticism, are inclined to sneer at the efficacy of drugs.



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